

## I CLAIM:

1. A device for transferring electric currents, comprising:
  - a slip ring unit comprising a rotor with connecting wires and a stator; and
    - 5 a printed circuit board fastened to said rotor, wherein said printed circuit board comprises connectors in electrical contact with said connecting wires, wherein a torque required for rotary movement between said rotor and said stator is introduced via said printed circuit board.
  2. The device in accordance with claim 1, wherein said connecting wires transmit current and are arranged in a geometrically determined pattern out of said rotor, and said printed circuit board comprises connecting points that are connected with said connecting wires and that are arranged in a pattern that is in accordance with said geometrically determined pattern.
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  3. The device in accordance with claim 1, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor.
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  4. The device in accordance with claim 2, wherein, starting at said connecting points, one or several of said conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said slip ring unit.
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5. The device in accordance with claim 2, wherein said geometrically determined pattern of said connecting wires is designed in such a way that said printed circuit board can only be attached in a desired position.

5                   6.         The device of claim 1, further comprising a remote-controlled  
object that transmits and/or receives electrical currents via said slip ring unit.

7. The device of claim 6, wherein said remote-controlled object comprises a camera.

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8. A device for transferring electric currents, comprising:

a slip ring unit comprising a rotor with connecting wires and a stator; and

a printed circuit board fastened to said rotor, said printed circuit

15 board comprising

connectors in electrical contact with said connecting wires of said rotor; and

connecting points;

20 said stator is introduced via said printed circuit board, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor and several ones of said connecting wires are conducted out of said rotor for transmitting current in accordance with a geometrically determined pattern, and said

connecting points with said connecting wires are arranged in a pattern that is in accordance with said geometrically determined pattern.

9. A device for transferring electric currents, comprising:

5 a slip ring unit comprising a stator with connecting wires and a

rotor; and

a printed circuit board fastened to said stator and comprising connectors that are in electrical contact with said connecting wires of said stator, wherein said printed circuit board is used as a torque support.

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10. The device in accordance with claim 9, wherein several ones of said connecting wires are conducted out of said stator in accordance with a geometrically determined pattern, and said connecting points with said connecting wires on said printed circuit board are arranged in a pattern that is in accordance with 15 said geometrically determined pattern.

11. The device in accordance with claim 9, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor.

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12. The device in accordance with claim 10, wherein, starting at said connecting points, one or several of said conductors over at least a partial area of said printed circuit board are directed radially away from an axis of rotation of said

slip ring unit.

13. The device in accordance with claim 10, wherein said  
geometrically determined pattern of said connecting wires is designed in such a way  
5 that said printed circuit board can only be attached in a desired position.

14. The device of claim 9, further comprising a remote-controlled  
object that transmits and/or receives electrical currents via said slip ring unit.

10 15. The device of claim 14, wherein said remote-controlled object  
comprises a camera.

15 16. A device for transferring electric currents, comprising:  
a slip ring unit comprising a stator with connecting wires and a  
rotor; and  
a printed circuit board fastened to said stator, said printed  
circuit board comprising:

connectors that are in electrical contact with said  
connecting wires of said stator; and

20 connecting points, wherein said printed circuit board is  
used as a torque support;  
wherein an outer portion of said slip ring unit is used as said  
stator and an inner portion of said slip ring unit is used as said rotor and several ones

of said connecting wires are conducted out of said stator in accordance with a geometrically determined pattern and said connecting points with said connecting wires on said printed circuit board are arranged in a pattern that is in accordance with said geometrically determined pattern.

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17. A device for transferring electric currents to, or from a remote-controlled camera, comprising:

a slip ring unit comprising a rotor with connecting wires and a stator; and

10 a printed circuit board fastened to said rotor, said printed circuit board comprising:

connectors that are in electrical contact with a remote-controlled camera and said connecting wires of said rotor; and connecting points;

15 wherein a torque required for rotary movement between said rotor and said stator is introduced via said printed circuit board, wherein an outer portion of said slip ring unit is used as said stator and an inner portion of said slip ring unit is used as said rotor, and several ones of said connecting wires are conducted out of said rotor in accordance with a geometrically determined pattern, and said connecting points with said connecting wires on said printed circuit board are arranged in a pattern that is in accordance with said geometrically determined pattern, wherein said geometrically determined pattern of said connecting wires is designed in such a way that said printed circuit board can only be attached in a desired position.